THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 25

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Appeal No. 1997-2925
Application No. 08/378,838

HEARD: May 1, 2000

Before KIMLIN, OWENS and LIEBERMAN, <u>Administrative Patent</u> <u>Judges</u>.

KIMLIN, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1-20, all the claims in the present application. Claim 1 is illustrative:

1. A sensor comprising a piezoelectric crystal with a polyarylene thioether-containing coating.

The examiner relies upon the following references as evidence of obviousness:

Strutz et al. (Strutz)

5,423,902

Jun. 13, 1995

Henrik M. Fog, "Piezoelectric Crystal Detector for the Monitoring of Ozone in Working Environments," 57 <u>Analytical Chemistry</u> no. 13, 2634-38 (1985)

Appealed claim 12 stands rejected under 35 U.S.C. § 112, second paragraph. All the appealed claims stand rejected under 35 U.S.C. § 103 as being unpatentable over Fog in view of Strutz.

We will not sustain the examiner's rejection of claim 12 under 35 U.S.C. § 112, second paragraph. According to the examiner, it is not clear what additional structure is provided in claim 12 that makes the sensor suitable for measurements in the recited fields. However, in making a rejection under § 112, second paragraph, it is incumbent upon the examiner, in the first instance, to demonstrate that one of ordinary skill in the art would not understand the scope of the claim when the claim language is read in light of the specification and state of the prior art. In re Speed, 710 F.d. 1544, 1548, 218 USPQ 385, 388 (Fed. Cir. 1983); In re

Moore, 439 F.d. 1232, 1235, 169 USPQ 236, 238 (CCPA 1971). In the present case, the examiner has not satisfied this burden. All that has been set forth is that the examiner, not one of ordinary skill in the art, does not understand the particular structures for sensors that are suitable for use in the fields of occupational safety and health, emission measurements and filter monitors.

We will also not sustain the examiner's rejection of the appealed claims under 35 U.S.C. § 103. In order for the collective teachings of Fog and Strutz to have made the presently claimed subject matter obvious to one of ordinary skill in the art within the meaning of § 103, Fog, the primary reference, must provide a general teaching that a piezoelectric crystal detector for monitoring ozone can be made by coating a piezoelectric crystal with any polymer coating that reacts with ozone in a nonreversible manner.

Then, and only then, would it have been obvious to utilize the polyarylene thioether of Strutz, which is employed as a filter for ozone, as a substitute for the polybutadiene exemplified by Fog. However, we find that Fog falls considerably short of providing such a general teaching regarding the coating

material. Fog discloses that "[t]wo types of reactions may be responsible for the monitoring of air pollutants using piezoelectric detectors," namely, reversible and nonreversible reactions (page 2635, column 1). In our view, Fog discloses advantages and disadvantages of both types of reactions, and limits the disclosure of an operable coating material to a particular unsaturated hydrocarbon polymer, 1,4-polybutadiene. While Fog may provide an invitation for one of ordinary skill in the art to explore other polymeric coatings which enter into nonreversible reactions with ozone, we do not find that such an invitation is sufficient evidence of obviousness for utilizing the polyarylene thioether disclosed by Strutz as a filter.

In conclusion, based on the foregoing, the examiner's decision rejecting the appealed claims is reversed.

REVERSED

EDWARD C. KIMLIN)			
Administrative Patent Judge)			
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TERRY J. OWENS)	BOARD	OF	PATENT

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PAUL LIEBERMAN)
Administrative Patent Judge)

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William F. Lawrence, Esq. Frommer, Lawrence & Haug, LLP 745 Fifth Ave.
New York, NY 10151